DRAFT Data Assessment Team (DAT) Conference Call Notes
5/30/13 at 11:00 a.m.

Participants: Lucinda Shih (CCWD), Geir Aasen and Lauren Damon (DFW), Andy Chu, Dan Yamanaka, Edmund Yu, Elaine Jeu and Wenli Yin (DWR), Craig Anderson, Jon Speegle and Leigh Bartoo (FWS), RG Fernando (MWD), Ron Silva (Reclamation), Tom Boardman (SLDMWA), Eleanor Bartolomeo (SWRCB)

Sacramento River Salmonid Monitoring

Preliminary Rotary Screw Trap (RST) Report			
Species*	**FWS Red Bluff Diversion Dam RST (Estimated Passage)**	**DFW Tisdale Weir RST (Catch)**	**DFW Knights Landing RST (Catch)**
Date	**5/7/13 to 5/20/13****	**5/23/13 to 5/29/13*****	**Monitoring discontinued since 12/15/12.**
CHNF	495,707	7	
CHNLF	1,790		
CHNW			
CHNS	4,195		
Ad-Clipped CHN	Not reported		
SH	8,432		
Ad-Clipped SH	Not reported		
*Chinook race based on length (Frank Fisher model); CHNF=Fall run, CHNLF=Late-fall run, CHNW=Winter run, CHNS= Spring run, SH = Steelhead. Species are unmarked unless noted as adipose-fin clipped (ad-clipped). Data subject to revision.			

**Overall, there has been a decline in the biweekly passage total for steelhead and for all runs of Chinook salmon when compared to the reporting period of 4/23 to 5/6.
***Chinook salmon catch has dropped off quite a bit at the Tisdale Weir when compared to the reporting period of 5/16 to 5/22. From 5/16 to 5/22, DFW caught 27 unmarked fall-run Chinook salmon and 8 ad-clipped Chinook salmon. As of 5/29, there has been no Chinook salmon catch since 5/23.

Graphical summaries of the monitoring data collected at the Sacramento River and at other locations can be found at http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm. In addition, the biweekly passage reports of juvenile salmonids sampled at the Red Bluff Diversion Dam are available at http://www.fws.gov/redbluff/rbdd_biweekly.aspx.

Hatchery Release Update

The Mokelumne River Fish Hatchery has continued to release brood year 2012 fall-run Chinook salmon into the San Joaquin River at Sherman Island Road. These releases began on 4/17 and are expected to continue until the first week of June. Some of the recent hatchery release information from the Mokelumne River Fish Hatchery is presented in the table below.

Release Dates	Total Released	Release Tagged
5/14 to 5/15/13	454,240	113,421
5/15 to 5/16/13	449,320	112,238
5/16 to 5/17/13	455,314	113,738

As of 5/17, 3,158,697 brood year 2012 fall-run Chinook salmon have been released at Sherman Island Road. Of the number released, 788,511 were ad-clipped and coded-wire tagged. There are no triggers or incidental take limits associated with these release groups from the Mokelumne River Fish Hatchery at the Delta pumping facilities.

Coded-Wire Tag Processing Update: All coded-wire tags recovered at the Delta fish facilities have been processed as of 5/29. However, FWS is still in the process of reading the coded-wire tags recovered at the various trawl and seine monitoring locations over the past few weeks. This data will be available for DAT once FWS gets caught up with reading the coded-wire tags.

Delta Fish Monitoring

Preliminary FWS Trawl and Seine Catch Report from 5/19/13 to 5/25/13				
Species*	**Beach Seines**	**Mossdale Trawl****	**Sacramento Trawl**	**Chipps Island Trawl**
CHNA				1
CHNF	3		67	140
CHNLF				
CHNW				
CHNS				1
Ad-Clipped CHN			1	25
SH				
Ad-Clipped SH				
DSM	2 (Antioch Dunes 27 mm and 37 mm, no expression)			1 (84 mm, no expression)
LFS				
SPLT	131			2
*Chinook race based on length (Frank Fisher model); CHNA= Adult, CHNF=Fall run, CHNLF=Late-fall run, CHNW=Winter run, CHNS= Spring run, SH = Steelhead, DSM=Delta smelt, LFS=Longfin smelt, SPLT = Splittail. Species are unmarked unless noted as adipose-fin clipped (ad-clipped) or spray dyed. Data subject to revision.				

**From April to June, DFW (Region 4) conducts the Mossdale trawl monitoring and not FWS. Based on preliminary data, DFW caught 644 unmarked Chinook salmon at the Mossdale trawl from 5/19 to 5/25. The average fork length was 84.7 mm. Overall, the unmarked Chinook salmon catch at the Mossdale trawl has slowed down since the reporting period of 5/12 to 5/18 where DFW caught 1,001 unmarked Chinook salmon.

As of 5/25, the season total (April to June) of unmarked Chinook salmon caught at the Mossdale trawl is 5,142. The April to June season is not yet over and this is the largest season total of unmarked Chinook salmon caught when looking back at data since 2005. The next highest was in 2007 where the season total catch of unmarked Chinook salmon was 3,392.

Information about the Delta fish monitoring data from FWS can also be found at http://www.fws.gov/stockton/jfmp/.

Salvage Monitoring

Preliminary DFW Salvage Report for Smelt and Other Species from 5/20/13 to 5/27/13				
	Central Valley Project (CVP)		**State Water Project (SWP)**	
Species	**Salvage**	**Total to Date**	**Salvage**	**Total to Date**
DSM*	4	272	188	876
LFS**		241	42	593
SPLT	4	53	8	130
GST				
WST		4		12
Notes: -DSM=Delta smelt, LFS=Longfin smelt, SPLT = Splittail, GST=Green sturgeon, WST=White sturgeon. -Salvage estimates are rounded to the nearest whole fish. -Total to date is the total since 10/1/12 (the start of water year 2013). -Data subject to revision.				

* Delta smelt <20 mm in fork length were reported in larval fish samples at the CVP fish facility during the reporting period. In contrast, no delta smelt < 20 mm in fork length were reported in larval fish samples at the SWP fish facility during the period from 1500 hours on 5/15 to 0900 hours on 5/23.

As of 5/29, the cumulative juvenile delta smelt salvage total at the fish facilities is 888 fish for the water year, which exceeds the monthly May incidental take limit of 809 fish. However, FWS and the Smelt Working Group are more concerned with the overall incidental take limit and the monthly take limits are only used for guidance. The current cumulative salvage total of juvenile delta smelt for the water year is still well below the overall incidental take limit of 2,350 fish.

** No longfin smelt <20 mm in fork length were reported in larval fish samples at the CVP fish facility during the reporting period. No longfin smelt < 20 mm FL were reported in larval fish samples at the SWP fish facility during the period from 1500 hours on 5/15 to 0900 hours on 5/23.

As of 5/29, the cumulative adult longfin smelt salvage total is 4 fish and the cumulative juvenile longfin smelt salvage total is 830 fish for the water year. There are no incidental take limits at the SWP/CVP for longfin smelt like there is for delta smelt. However, DFW and the Smelt Working Group does look at the adult longfin smelt salvaged at the fish facilities to generate a recommendation for Old and Middle River (OMR) flow.

As required in the SWP longfin smelt incidental take permit, the Smelt Working Group must provide advice to the Water Operations Management Team (WOMT) and DFW when the adult longfin smelt cumulative salvage index (i.e., the total adult longfin smelt salvaged/previous Fall Midwater Trawl longfin smelt annual index) from December to February is greater than 5. In other words, the Smelt Working Group will generate advice based on the total adult longfin smelt salvaged at the fish facilities during December to February when the total adult longfin smelt salvage is greater than the Fall Midwater Trawl longfin smelt index multiplied by 5.

The annual 2012 Fall Midwater Trawl longfin smelt index was 61. Therefore, the total adult longfin smelt salvage threshold for advice was >305. No advice was ever warranted based on this criterion from December to February 2013. In addition, there is no salvage criterion in the SWP longfin smelt incidental take permit for juvenile longfin smelt.

Preliminary DFW Salvage Report for Salmonids from 5/20/13 to 5/27/13								
	CVP				**SWP**			
Species	**Adipose-Fin Clipped (Ad-Clipped)**		**Non-Adipose Fin Clipped (Non-Clipped)**		**Adipose-Fin Clipped (Ad-Clipped)**		**Non-Adipose Fin Clipped (Non-Clipped)**	
	Salvage	**Loss**	**Salvage**	**Loss**	**Salvage**	**Loss**	**Salvage**	**Loss**
CHNF			289	237			230	1,118
Total to Date	93	62	3,087	2,378	322	1,460	1,386	6,128
CHNLF								
Total to Date	165	118	28	18	616	2,780	57	260
CHNW								
Total to Date	67	53	129	98	120	542	142	633
CHNS							16	84
Total to Date	4	2	404	297	3	13	505	2,199
CHNU								
Total to Date			8	5				
SH			24	16	8	35		
Total to Date	316	215	318	216	385	1,667	448	1,938

Notes:
-Chinook race based on length (Delta model); CHNF=Fall run, CHNLF=Late-fall run, CHNW=Winter run, CHNS= Spring run, CHNU= Unknown race (Chinook greater than the length-at-date criteria), SH = Steelhead.
-Salvage and loss estimates are rounded to the nearest whole fish.
-Documentation on how to calculate salvage and Chinook loss can be found at ftp://ftp.delta.dfg.ca.gov/salvage/Salmon%20Loss%20Estimation/.
-Steelhead loss: SWP steelhead loss = salvage × 4.33 and CVP steelhead loss = salvage × 0.68.
-Total to date is the total since 10/1/12 (the start of water year 2013).
-Data subject to revision.

Since the reporting period, there has been a decrease in salvage of Chinook salmon and steelhead. So far this week, only non-clipped fall-run Chinook salmon have been salvaged at the fish facilities.

Salvage information is posted on the salvage FTP site (ftp://ftp.dfg.ca.gov/salvage/). If you cannot access the FTP site, you can also go to http://www.dfg.ca.gov/delta/apps/salvage/Default.aspx and click on "Salvage FTP Site."

Smelt Monitoring

The 20-mm Survey #6 was in the field from 5/20 to 5/23. There was a delay in laboratory processing due to problems with laboratory waste, but processing is now up and running again. So far, 39% of the field samples have been processed. DFW collected 71 delta smelt that ranged in size from 11 to 34 mm and 1,164 longfin smelt that ranged in size from 17 to 41 mm.

DFW will begin 20-mm Survey #7 on 6/3. For more information about the 20-mm Survey, please visit the DFW website: http://dfg.ca.gov/delta/projects.asp?ProjectID=20mm.

Smelt Working Group

The Smelt Working Group met on Tuesday (5/28) and agreed that current operations are sufficiently protective for both longfin smelt and delta smelt. Overall, juvenile smelt salvage has dwindled down when compared to the previous week and recent survey data is showing that the recent smelt distribution is outside of the central and south Delta. At this time, DFW feels that the longfin smelt salvage season is coming to an end based on current temperatures and the distribution of the species.

The Smelt Working Group will continue to make recommendations on OMR flow for juvenile delta smelt using the guidance in FWS RPA Component 2, Action 3 until 6/30 or when the daily mean water temperature reaches 25°C at Clifton Court Forebay for 3 consecutive days. However, DWR and Reclamation must continue to track the incidental take of juvenile delta smelt at the SWP/CVP even when Action 3 ends to ensure that the incidental take limit of juvenile delta smelt is not exceeded.

After providing this week's Smelt Working Group update, Leigh Bartoo (FWS) responded to various questions from DAT participants. The questions and responses are below.

- Isn't the water temperature off ramp in Action 3 based on a 3-day mean (i.e., water temperature is averaged for 3 days)? Page 282 of the 2008 FWS BiOp on long-term SWP/CVP operations states that the action "shall end June 30 or when the 3-day mean water temperature at Clifton Court Forebay reaches 25°C, whichever occurs earlier."
    - *Response:* The off ramp is based on 3 consecutive days. Each day must be above 25°C and the water temperature off ramp is measured to a tenth of a degree as reported on the California Data Exchange Center (CDEC).This means that 24.9°C is not equal to 25°C. The mean referenced in the 2008 FWS BiOp refers to the daily mean water temperature since the daily water temperature on CDEC is based on a mean of hourly measurements.

      This question is further clarified in Attachment B of the 2008 FWS BiOp, which states that the water temperature off ramp in Action 3 is met when "water temperature reaches a daily average of 25°C for three consecutive days at Clifton Court Forebay" (page 358).

      On 5/29, the daily mean water temperature at Clifton Court Forebay was at about 20°C, so water temperature is not approaching 25°C yet.

- Did the Smelt Working Group express any concern about the risk of smelt entrainment once the 1:1 San Joaquin flow restriction (i.e., NMFS RPA Action IV.2.1) is lifted at the end of the month?
    - *Response:* No concerns were expressed at this week's Smelt Working Group meeting since more information is needed. Because of this, the Smelt Working Group will request a particle tracking model run for next week when OMR flows may potentially change in a more negative direction.

However, Andy Chu (DWR) mentioned that there will be very little change in SWP/CVP exports once the 1:1 restriction ends since there is a lack of water in the system. For the first couple of days in June, the X2/outflow requirements from D-1641 will most likely be controlling operations.

DWR and Reclamation will need to maintain outflow at a minimum of 7,100 cfs. Outflow is now running at about 9,900 cfs. There will be some reservoir reductions upstream and there is some uncertainty on how the depletion will change with the hot weather over the weekend. By tomorrow (5/31), we should see the effects of the upstream reservoir reductions.

- The monthly incidental take limit of 20 fish was exceeded in April and the monthly incidental take limit of 809 fish was exceeded in May for juvenile delta smelt. Did the Smelt Working Group express any concerns about the high juvenile delta smelt salvage trends in April and May, especially when there were days where the OMR flow was more positive than the 14-day OMR flow target of Action 3 (i.e., -1,250 cfs to -5,000 cfs)?
    - *Response:* Obviously, the Smelt Working Group does not want to see the high salvage trends, but understands that it cannot protect every delta smelt. There was not a great deal of concern to express at this past week's meeting since DWR and Reclamation do have its allowable take limit for juvenile delta smelt. In addition, there has been a reduced number in the weekly salvage totals. The weekly salvage total from 5/20 to 5/27 was 192 juvenile delta smelt, which was a decrease from the weekly salvage total from 5/13 to 5/19 where 284 juvenile delta smelt were salvaged.

      The Smelt Working Group is hoping this downward trend continues, but concern of risk will have to be evaluated on a week to week basis.

The Smelt Working Group notes and FWS determinations are posted at http://www.fws.gov/sfbaydelta/cvp-swp/smelt_working_group.cfm.

Delta Operations for Salmonids and Sturgeon (DOSS) Working Group

No NMFS representative from DOSS was present on the DAT conference call. However, Barb Byrne (NMFS) sent out an e-mail update to DAT prior to the conference call. Excerpts from the e-mail update are below:

> **DOSS Update:**
> DOSS met on Wednesday, 5/29/13 (delayed by one day because of the holiday on Monday).
>
> **DOSS Advice to WOMT and NMFS:** None.
>
> **RPA Implementation Update:**
>
> *Action IV.2.3 (OMR flow management):* No loss triggers have been exceeded over the past week, so the OMR limit in effect is that OMR be no more negative than -5,000 cfs on a 14-day average, and no more negative than 25% more than the OMR limit (-6,125 cfs) on a 5-day average. Action IV.2.3 is implemented "until June 15 or until average daily water temperature at Mossdale is greater than 72 degrees F (22 degrees C) for seven consecutive days, whichever is earlier." Current average daily water temperatures at Mossdale are approximately 69 degrees F.
>
> *Action IV.2.1 (I:E ratio):* Current inflow at Vernalis is 975 cfs. Because the 1:1 I:E ratio would require pumping below the minimum health & safety level of combined exports of 1,500 cfs, the health & safety exception is in effect and the projects are operating to a combined export level of 1,500 cfs.
>
> Action IV.2.1 is in effect through May 31, 2013.

Other Items of Interest:

NMFS Merger: The southwest (SW) and northwest (NW) regions of NMFS will be merging. The Central Valley Office in Sacramento will continue to exist and any structural changes in how duties are shared throughout the new West Coast region will be determined over the next year or so. The current NW Regional Administrator, Will Stelle, will take on the responsibility of regional administrator for both the NW and SW regional offices as the agency works on forming its new West Coast Regional Office. Rod McInnis, SW Regional Administrator, has accepted a new position at NOAA Fisheries headquarters in Silver Spring, MD as Acting Director of NOAA Fisheries Office of International Affairs. For more information regarding the merger, see: http://www.nmfs.noaa.gov/aboutus/leadership_message.html.

After reviewing the e-mail update, there were no questions or concerns that need to be addressed to NMFS or DOSS. DOSS notes are posted at http://www.swr.noaa.gov/ocap/doss.htm.

Operations

Preliminary Summary for 5/30/13			
SWP		**CVP**	
Clifton Court Inflow (cfs)	700	Jones Pumping Plant (cfs)	800
SWP San Luis Reservoir Share (TAF) as of Midnight	326	CVP San Luis Reservoir Share (TAF) as of Midnight	485
San Luis Reservoir Total (TAF) as of Midnight	811	American – Nimbus Reservoir Releases (cfs)	1,000
Feather – Oroville Reservoir Releases (cfs)	2,500	Sacramento – Keswick Reservoir Releases (cfs)	12,000
DELTA OPERATIONS			
Outflow (cfs)	~9,900	14-day Average OMR Flow as of 5/29/13 (cfs)	-1,476
X2 (km)	> 81	5-day Average OMR Flow as of 5/29/13(cfs)	-1,992
E/I (%)	9.7 (3-day average)		

A summary of daily operations can also be viewed at http://www.water.ca.gov/swp/operationscontrol/docs/delta/deltaops.pdf.

Actions to Conserve the Cold Water Pool in Shasta Reservoir for Fishery Resources

Many of the objectives in D-1641 are based on water year type and the Sacramento Valley is currently classified as a dry water year type based on the equation in D-1641. However, this water year is unique since most of the precipitation came in November and December and the water year was followed by record dry conditions that are more reflective of a critical water year type. Current operations to the D-1641 requirements of a dry water year type for the western and interior Delta water quality objectives has led to the release of a large amount of water from the Oroville, Shasta, and Folsom reservoirs. These high reservoir releases have resulted in the depletion of the cold water pool in the reservoirs that are used to provide suitable habitat conditions for anadromous fish in the summer and fall. If DWR and Reclamation continue to operate to these dry water year type objectives for the western/interior Delta water quality and Delta outflow, then Reclamation would not be able to operate the Shasta Reservoir to meet the water temperature control requirements in the Sacramento River in the summer and fall for Chinook salmon protection due to the depletion of the cold water pool.

For these reasons, DWR and Reclamation submitted a letter to the SWRCB last week on 5/24 to request an acknowledgment that the actual conditions in the Sacramento Valley should be considered as a critical water year type rather than a dry water year type for the purposes of relaxing the Delta outflow objectives and the water quality objectives in the western and interior Delta from D-1641. The SWRCB followed up with DWR and Reclamation with a response via e-mail on 5/24 and issued a formal letter on 5/29.

With support from the fishery agencies, the SWRCB acknowledged the current dilemma and will not seek action if DWR and Reclamation operate to the western and interior Delta water quality objectives for a critical water year type rather than a dry water year type through 8/15. The water quality objectives based on electrical conductivity (EC) at the western and interior Delta monitoring stations for a critical water year type are listed in the table below.

Station	14-Day Average EC Objective (mS/cm) until 8/15
Sacramento River at Emmaton	≤ 2.78
San Joaquin River at Jersey Point	≤ 2.20
San Joaquin River at San Andreas Landing	≤ 0.87
South Fork Mokelumne River at Terminus	≤ 0.54

The other D-1641 requirements like Delta outflow will still be operated to a dry water year type since the fishery agencies still need to consider the potential fishery impacts from changing the water year type requirements. Nevertheless, this proposal is only for this specific year and only allowed if DWR and Reclamation follow the specific conditions addressed in the response letter from the SWRCB, such as submitting a water temperature management plan by 6/4 and operating to it, implementing other actions specified by the SWRCB as needed, and submitting a water accounting report to the SWRCB by 8/22 as a result of this change in operations.

The letter from DWR and Reclamation to the SWRCB and the response letter from the SWRCB related to the actions to conserve the cold water pool in the Shasta Reservoir for fishery purposes can be found at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/decision_1641/conserve/.

After providing the update, Chu responded to various questions from DAT participants related to this proposed action. The questions and responses are below.

- What is the measurable change as a result of the relaxation of the western and interior Delta water quality objectives?
    - *Response:* Reservoir releases will be shifted from the spring to the fall. It will not cause any summer reductions.

      Based on preliminary estimates from Reclamation, the relaxation of the water quality objectives from May to August 15 would lead to a gain of approximately 115 TAF of upstream reservoir carryover storage for September. An additional 70 TAF would be gained if the Delta outflow objectives were relaxed to a critical water year type; however, relaxing the Delta outflow objectives are not part of the current SWRCB acknowledged actions to conserve the cold water pool in Shasta Reservoir.

- If the relaxation to a critical water year type is only for the interior and western Delta water quality objectives, then would another D-1641 objective be just as restrictive in the upcoming months?
    - *Response:* Delta outflow would be a controlling factor in the upcoming weeks, but there is not a substantial difference in outflow objectives between a dry water year type and a critical water year type. The outflow objectives are the same in June and September for both a dry water year type and a critical water year type. In contrast, the difference between a dry water year type and a critical water year type is about 1,000 cfs in July and 500 cfs in August. The Delta outflow objectives from June to September are listed in the table below.

Month	Delta Outflow (cfs) for Dry Water Year Type	Delta Outflow (cfs) for Critical Water Year Type
June	7,100	7,100
July	5,000	4,000
August	3,500	3,000
September	3,000	3,000

By late August or September, DWR and Reclamation will have to look closely at the chloride objective at the Contra Costa Canal Pumping Plant from D-1641. However, this is not anticipated to be a controlling factor this water year.

- What is the reason for the reduction in reservoir releases at Keswick and Oroville?
    - *Response:* These reductions are the result of the relaxation of the western and interior Delta water quality objectives.

Next Conference Call: The next DAT conference call is scheduled on 6/6 at 11:00 a.m. An e-mail update will be sent out before the conference call if an agency representative cannot call in.